ABSTRACT

This is a case study based on Lion Brewery Ceylon PLC, Biyagama, Which is famous beer company and market leader in Sri Lanka Company outbound logistics has been considered in this research and it is mainly forces on distribution and redistribution process in Colombo region.

Bottles and Cans separately distribution strategy has been applied for the region under three ways in order to find optimal locations of new facilities for bottles and cans warehouse through determine route plan with cost optimize truck allocation system. Current trucks have been allocated to new roots and purpose is to find cost optimized distribution system.

To find an optimal locations Gravity model has been used and used Hamiltonian cycle to find optimal path between sub clusters. Lingo software has been used to solve Hamiltonian cycle problem. Bottles and cans warehouse capacity plan, cost comparison of existing model and proposed model including milk run and salaries and wages of employed have been embedded to this research. Finally author has compared total cost of current operation and proposed operation they proving huge cost benefits/savings (28.18% savings) than current distribution operation.

Key words; Distribution, Redistribution, Gravity Model, LINGO Software